Calibration technique of a BEMF detector

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ABSTRACT

The present invention relates to the positioning of the read/write transducer heads of an hard disk (HD) in a designated landing zone when requested or when the electrical power is removed from the drive. In particularly it relates to the detection of the back electromotive force (BEMF) of the motor involved in the positioning of the read/write transducer heads. According to an embodiment of the present invention a BEMF detection circuit for a voice-coil motor operative to continually generate a signal proportionally to the velocity of said voice-coil motor comprises a algebraic summing node producing at its output the BEMF of the voice-coil motor and receiving: a first voltage proportional to the voltage across the voice-coil motor; a second voltage representing the product of a first multiplier factor and a voltage proportional to the current in the coil; a third voltage representing the product of a prefixed bias voltage Vref and a second multiplier factor; said third voltage is calibrated by a single calibration circuitry operative to calibrate said second multiplier factor in response to a calibration control signal, in order to cancel said second voltage.